CALIFORNIA RESOURCES CORPORATION

March 4, 2016

Mr. Ken Harris
Supervisor
Division of Oil, Gas & Natural Resources
801 K Street, MS 24-01
Sacramento, CA 95814

RE: California Resources Corporation's Comments on Underground Injection Control Regulations Discussion Draft

Dear Mr. Harris:

California Resources Corporation (CRC) appreciates the opportunity to provide comments on the Underground Injection Control (UIC) Regulations Discussion Draft, published on January 21, 2016. As a company that operates entirely within California, CRC and our workers, partners, mineral owners and communities have a vested interest in the fut ure of the Division of Oil, Gas, and Geothermal Resources' (Division) regulation of the diverse practices and operations governed by the UIC program. CRC and our predecessors have invested billions of dollars in reliance on longstanding state permits and approvals to develop our properties with long -lived UIC projects and increase California oil and gas production in a safe, efficient and environmentally responsible manner.

CRC has engaged with the Division on a local and state level on many UIC issues and is looking forward to continuing to assist and work with the Division. While we have participated with WSPA and CIPA in developing comments on the UIC Discussion Draft, the CRC comments highlight our specific concerns.

CRC is the largest produce r, on a gross operated basis, in California and we have very diverse operations, including UIC projects, across the state. We are also the largest producer on State Lands with a demonstrated commitment to safeguarding the environment in our UIC operations . The complex and varied geology within the state of California results in complicated operating environments and high water cuts in many of our fields.

UIC encompasses a variety of activities and different functions in our operations, so a single well may serve several purposes over its lifetime. Consistent with the Division's mission to increase the ultimate recovery of California's oil and natural gas resources, regulations need to reflect the diversity of California's oil and gas fields and the protective measures and practices being applied ever yday by our dedicated workforce in our injection operations to safeguard the environment.

Project Approval Letters

CRC is concerned with the open -ended nature of the Division's approval and administrat ion of UIC Project Approval Letters (PAL). Operational and investment decisions are based on receipt of a PAL and it is essential that we have confidence in the process and approvals. It is also imperative that the Division honor its existing approvals a nd injection permits, including existing operating pressures and gradients that serve as the basis for design and construction of wells and facilities and for existing reservoir management and subsidence control. Any modifications to current PALs need to consider the implications on existing facilities, subsidence and reservoir management to enable efficient, reliable production from existing fields. Accordingly, we request that the Division clarify that any new requirements (1) are prospective, so they apply to construction and testing of new injection wells and not to wells previously installed, and (2) apply a field -specific approach that endorses alternative engineering methods to meet the Division's objective efficiently.

AOR / Abandonment

CRC believes that the Division should limit any requirements to re -enter plugged and abandoned well bores simply to obtain cement bond logs. These wells were abandoned with Division approval, to Division specifications, and often with Division supervision. Re -entry is particularly unwarranted in areas where there is no protected water present (either no water <10,000 ppm TDS or through aquifer exemption). The requirements for plugging and abandoning a well make them extremely difficult to safely and successfull y re-enter. We believe the cost and potential risk of re-entering a plugged and abandoned well far outweigh any value of running a cement bond log on that well.

CRC is also concerned with the Division's proposal to place cement plugs across all hydrocarbon zones for wells without production or injection data for two years. It is a common practice to idle wells in a field for a variety of reasons, and these are returned to production due to economic conditions, investment in new development projects such a s for secondary or tertiary recovery, or technological advancements. Our wells are valuable assets that are managed carefully and the option of idling a well is an important part of operating our fields. Repurposing or reactivating an idle well is an eff icient and environmentally sound practice since it maximizes the use of existing infrastructure and requires less energy than drilling a new well. Reusing idle wells has helped sustain valuable in -state production from mature fields, reducing California's chronic dependency on imported energy from the Middle East and elsewhere. The forced plugging of idle wells would inhibit an operator's ability to maximize production and to realize the value of mineral rights and investments, without providing any benefit.

Cement jobs have been designed to meet or exceed Division requirements at the time of the installation. The proposed adjustment to AOR cement analysis suggesting a requirement of 500 feet of calculated cement must be specified as a p rospective requirement only, and would not be appropriate to apply in evaluating existing wells. There are also instances where 500 feet may not be possible due to well depth and other conditions. We believe the Division's current standards achieve the ne cessary isolation of fresh water resources, so adding a 500 -foot requirement seems arbitrary and overly burdensome without increasing protection.

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Well Testing / Operations

CRC is concerned that the proposed requirements for well testing are overly prescriptive and would limit the existing flexibility in testing method and frequency that is necessary to account for well - and field -specific conditions . CRC's diverse assets, both geologically and operationally, warrant fit -for-purpose monitoring, whic h the Division has successfully implemented for years. The Division should continue to accept alternative testing approaches that enable us to maintain high standards of well integrity testing while focusing on field -specific conditions.

MIT / Injection Survey

It is unclear why the Division is proposing to combine testing frequencies for different types of UIC into a single testing schedule. The current rule allows for mechanical integrity testing (MIT) on water disposal wells annually, waterflood wells every 2 years, and steamflood wells every 5 years. The existing tiered schedule is appropriate for detecting and mitigating issues within the wellbores.

Regulations should also specify that the requirements for confinement of injected fluids apply to the top of the approved zone of injection, as opposed to the depths of perforation. A successful test demonstrates that there is no migration around the packer or above the approved zone of injection.

SAPT

CRC requests clarification of standard annular pressu re test (SAPT) requirements and justifications for any changes from current regulations. Current requirements for SAPTs allow for flexibility for well - and field -specific conditions. This enables operators to adjust testing frequencies and pressures to ensure casing integrity while reducing the potential for damage to infrastructure as an artifact of unrealistic testing pressures.

SRT

The proposed requirements in the discussion draft for step -rate tests (SRT) are overly prescriptive and do not account for operational diversity or allow operators to utilize historical data to optimize testing. Some wells are configured in a way that cannot achieve a representative SRT directly, so regulations should allow for alternatives such as use of offs et well SRTs , Division-approved monitoring systems or geotechnical studies.

If you have any questions, please do not hesitate to contact me at 916-503-1720.

Sincerely,

Maris Densmore

Maris Densmore
California Resources Corporation